

Abstract

A fuel measuring system includes a package adapted for mounting to a fuel storage vessel. The package includes an electro-statically shielded enclosure. A processor element is disposed in the enclosure and is adapted for coupling to a fuel sensor disposed in the storage vessel. A communication interface is provided for coupling data through the enclosure between the processor and a processor external to the package through a dielectric transmission media passing through the enclosure. A power supply for the processor element disposed in the enclosure, such power supply being adapted to generate power for the processing element in response to input energy. An energy interface is provided for coupling the input energy from a source external to the enclosure through dielectric transmission media passing through the enclosure. With such an arrangement both data to the electro-statically shielded processor and energy to the electro-statically shielded power supply are coupled to the electro-statically shielded enclosure through dielectric media. Therefore, electrical disturbances external to the enclosure will not be carried by conductive wires into the enclosure and then into the fuel tank which might thereby cause a hazardous condition in the fuel in the tank.